Notice of Allowability	Application No.	Applicant(s)	
	09/800,276	SUGIURA ET AL.	
	Examiner	Art Unit	
	Michael W. Hoye	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment filed on 2/1/06*.

2. ☒ The allowed claim(s) is/are *4,5 and 7 (Renumbered as claims 1-3)*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. The following is an Examiner's statement of reasons for allowance: Claims 4-5 and 7 (renumbered as claims 1-3) are allowed.

Regarding amended independent claim 4, the prior art, alone or in combination, does not teach or fairly suggest all of the claimed limitations including, "an upward signal amplifier, provided on a transmission line between center equipment of a bidirectional CATV system and a terminal device...comprising...a pair of power separation filters, provided at least either between said third terminal and said first and fourth filters, or between said fourth terminal and said first and fourth filters, for separating alternating current power signals for a power supply, transmitted from an external power unit to the third terminal or the fourth terminal via said transmission line, from each of said downward, upward L and upward H signals; and a power supply circuit for generating a power voltage to operate said upward H amplifying circuit and supplying the power voltage to the upward H amplifying circuit upon receipt of the alternating current power signals separated at one of the pair of power separation filters, wherein the alternating current power signals separated at an other of the pair of power separation filters are output from said fifth terminal or sixth terminal to the first terminal of said existing CATV amplifier or the second terminal of said existing CATV amplifier."

As for the most pertinent prior art of record, the Peyrovian (USPN 5,7689,682) reference discloses a two-way or bi-directional CATV amplifier. The claimed CATV amplifier provided on a transmission line between center equipment of a bi-directional CATV system and a terminal

device, for externally attaching to an existing CATV amplifier... is met by trunk amplifier 29 as shown in Fig. 3. The claimed existing CATV amplifier comprising: a downward amplifying circuit for amplifying the downward signal is met by amplifier 45 in Fig. 3. The claimed upward L amplifying circuit for amplifying an upward L signal which is an upward signal in a frequency band lower than that of the downward signal is met by amplifier 49. The claimed upward H amplifying circuit for amplifying upward H signal which is the upward signal in a frequency band higher than that of the downward signal is met by repeater/amplifier 40 (see the definitions of a amplifier and a repeater as described in Newton's Telecom Dictionary pages 49 and 623, respectively, where a repeater is used in digital systems for amplifying signals). The claimed first terminal and a second terminal for connecting the CATV amplifier to the transmission line on the center equipment side and on the terminal device side, respectively, is met by 26_1 (col. 4, lines 30-32) and 26_2 (col. 4, lines 55-57). The claimed pair of first filters, connected to the first terminal and the second terminal, respectively, for cutting off the upward H signal and selectively passing the downward signal and the upward L signal are met by the low pass (L) frequency filters 38_1 and 38_2 as shown in Fig. 3 (see col. 3, line 64 – col. 4, line 14 and col. 4, lines 63-67). The claimed pair of second filters, provided between each of the pair of first filters and the downward amplifying circuit, for cutting off the upward L signal and selectively passing only the downward signal are met by the high pass (H) frequency filters 44_1 and 44_2 as shown in Fig. 3 (see col. 4, lines 6-9 and lines 33-57). The claimed pair of third filters, provided between each of the pair of first filters and the upward L amplifying circuit, for cutting off the downward signal and selectively passing only the upward L signal are met by the low pass (L) frequency filters 44_1 and 44_2 as shown in Fig. 3 (see col. 4, lines 6-14 and lines 58-67). The claimed pair of

fourth filters, provided between the first terminal and the upward H amplifying circuit and between the second terminal and the upward H amplifying circuit, respectively, for cutting off the downward signal and the upward L signal and selectively passing only the upward H signal are met by the high pass (H) frequency filters 38_1 and 38_2 as shown in Fig. 3 (see col. 3, line 64 – col. 4, line 6 and col. 4, lines 19-35). However, Peyrovian does not disclose or suggest the claimed pair of power separation filters... as described above. In the Applicants' claimed invention these features are specifically disclosed in claim 4.

Regarding claim 7, the prior art, alone or in combination, does not teach or fairly suggest all of the claimed limitations including, "a bi-directional CATV system...wherein in the plurality of existing CATV amplifiers connected to said transmission line via said upward signal amplifier, the fourth terminal and the sixth terminal of the upward signal amplifier provided for a first existing CATV amplifier, located at a predetermined distance from the center equipment side, are terminated at the characteristic impedance of the transmission line, a second terminal of the first existing CATV amplifier and a first terminal of a second existing CATV amplifier, located at a stage next to the first existing CATV amplifier, are directly connected via the transmission line, the fifth terminal of the upward amplifier provided for said second existing CATV amplifier is terminated at the characteristic impedance of the transmission line, and the third terminal of the upward signal amplifier provided for the second existing CATV amplifier is connected to the center equipment via an optical transmission path capable of converting an electrical signal to an optical signal, so that an upward H signal transmitted from the upward signal amplifier provided for the second existing CATV amplifier, located closer to the terminal

device than the first existing CATV amplifier, is directly transmitted to the center equipment via the optical transmission path."

As for the most pertinent prior art of record, the Peyrovian (USPN 5,7689,682) reference discloses two-way or bi-directional CATV amplifiers see Figures 2 and 3 as described above and in the previous Office Action. However, Peyrovian does not disclose or suggest all of the claimed limitations including the optical transmission path as described in detail above. In the Applicants' claimed invention these features are specifically disclosed in claim 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is **571-272-7346**. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

Any response to this action should be mailed to:

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Some correspondence may be submitted electronically. See the Office's Internet Web site **http://www.uspto.gov** for additional information.

Or faxed to: 571-273-8300

Hand-delivered responses should be brought to the Customer Service Window at the address listed above.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **571-272-2600**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoye
April 17, 2006

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600